Distr.
GENERAL

GC.4/50
21 October 1991

United Nations Industrial Development Organization

ORIGINAL: ENGLISH

GENERAL CONFERENCE

Fourth session
Vienna, 18-22 November 1991
Item 29 of the provisional agenda

COMPUTERIZATION PROGRAMME: FOLLOW-UP OF THE RECOMMENDATIONS OF THE EXTERNAL AUDITOR

Updated follow-up report by the External Auditor on the implementation of an electronic data processing system acquisition project by the United Nations Industrial Development Organization*

Report by the External Auditor

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LETTER OF TRANSMITTAL

15 October 1991

Dear Mr. Siazon,

I have the honour to transmit to you for submission to the Policy-making Organs of the Organization as requested by the Industrial Development Board in decision IDB.8/Dec.36, paragraph (n), of 6 July 1991, an updated follow-up report by the External Auditor on the implementation of an electronic data processing system acquisition project by the United Nations Industrial Development Organization.

Accept, Sir, the assurances of my highest consideration.

(Signed)

J. Martens
Director of External Audit,
Belgium

* The present document has not been edited.

V.91 29798 1646E

Distr.: 28 October 1991

BELGIUM EXTERNAL AUDIT

Updated follow-up report by the External Auditor on the implementation of an electronic data processing system acquisition project by the United Nations Industrial Development Organization

INTRODUCTION

1. At its eighth session, the Industrial Development Board adopted decision IDB.8/Dec.36 which, in paragraph (n), called for an updated follow-up report from the External Auditor on the computerization programme of the United Nations Industrial Development Organization (UNIDO) to be presented at the fourth session of the General Conference.

2. Decision IDB.8/Dec.36 of the Board is in conformity with UNIDO financial regulation 11.6 which stipulates that the Conference, the Board or the Programme and Budget Committee may request the External Auditor to perform certain specific examinations and to issue separate reports on the results.

3. The update and follow-up exercise has been carried out by a team of four auditors of the Court of Audit, Belgium, at UNIDO Headquarters in Vienna, during the period from 23 September to 11 October 1991.

4. The audit examination has focused on:

(i) an update of contractual, budgetary and financial data on the computerization programme of UNIDO since the completion of the specific, in-depth external audit examination of the programme as reported in documents IDB.8/3 of 25 February 1991 and IDB.8/3/Corr.2 of 10 April 1991;

(ii) an analysis and review of major organizational, contractual, budgetary and financial aspects of the present status of implementation of the computerization programme.

5. The report does not address the issues reported in document IDB.8/3 which relate primarily to UNIDO's general management and internal control procedures because for reasons of practicality these matters will have to be elaborated upon further in due time as part of the ongoing general audit review programme of the Organization.

6. In line with established audit procedures the factual evidence and the findings contained in this report have been discussed by the audit team with senior officials of the Organization and their comments and observations have been taken into account where appropriate.

SUMMARY OF FINDINGS

7. Our review of the procedure for engaging a consultancy firm to provide UNIDO with guidelines for the development of its Electronic Data Processing (EDP) policy over the next years indicated that the recommendations made by the Working Group of Independent Experts on this subject were followed to the maximum extent possible and that UNIDO applied for this exercise all standard contract management procedures that limited time and the special nature of the project would permit.

8. In our view, the special nature and circumstances of the project affected adversely the quality of the consultancy study as well as the transparency of the calling for proposals exercise especially as regards the clear identification and publicity of all evaluation/selection criteria and the formal documentation of all proceedings.

9. Because the negotiations with the main contractor IBM were not finalized at the time of our audit, we could not verify all the financial implications of these changes as mentioned in the relevant Letter of Intent. We were informed nevertheless that the agreed changes set forth in this Letter of Intent remain the primary objective of the current finalization of the negotiations and thus also provide a fairly reliable and accurate basis for budgetary/financial projections.

10. We noted that pursuant to the request of the Industrial Development Board (IDB), EDP non-staff cost estimates are shown in the 1992-1993 budget proposals under a separate object of expenditure and are being spread also among different user departments thus providing a valid basis for meeting in future the observations in our initial report on the subject of budgetary approval authority and budgetary/allotment control.

11. The new "net basis" budget format as approved by the Member States and adopted by the Secretariat for the presentation of the 1992-1993 budget proposals in general and for the relevant EDP Programme budget section in particular requires, in our opinion, a careful review of the financial regulations and rules of the Organization with a view to ensure that this new budget practice is covered adequately by the prevailing legislative directions.

12. On the matter of spreading all EDP non-staff costs among different user departments we were informed that Management is in the process of developing a complete charge-back system which would allocate computer resources to end-users at the divisional level and that the Secretariat hopes to have this system in place by the time the 1992-1993 programme and budget is implemented. It is, moreover, the intention of the Secretariat to distribute also the EDP-related staff costs among the various departments once such a meaningful charge-back system is in place.

13. Our audit indicated that during the period from October 1990 up to 30 September 1991 total expenditures in the amount of US$4,566,242.91 remained within the allowances authorized by the Policy-making Organs (PMO) (cf. IDB.7/Dec.26 of 9 November 1990; IDB.8/48 of 26 June 1991; and IDB.8/Dec.35 of 5 July 1991). The Secretariat also explained that these authorizations were not used as a basis for issuing the allotments, the latter being based on the redeployment proposals to the Programme and Budget Committee (PBC) and the IDB (cf. document PBC.7/2 as updated in document GC.4/47).

14. It appeared that steps have been taken by the Administration to provide the PMO with the

necessary information on EDP programme commitments for future fiscal periods by presenting, together with the 1992-1993 programme and budgets proposals, estimates of the EDP programme costs through to the end of the 1994-1995 biennium. Moreover, EDP programme commitment items have been recorded as deferred charges on the UNIDO General Fund financial statements as at 31 December 1990.

15. With regard to the compliance of the contents of the Touche Ross consultants' final report with the terms of reference as specified in annex F to the Request for Proposals No. 91/31 it was revealed that some elements were missing or had not fully been elaborated (cf. paras. 7-8 above). In this connection we noticed also that EDP Management had realized the need for other and additional EDP consultancy services already at an earlier stage and that to this end appropriate budgetary provisions have been made.

16. Our review of the modifications to the Facilities Management contract as contained in the Letter of Intent of 18 June 1991 indicated major changes in the area of Disaster Recovery (an important issue for hard- and software security, safeguarding EDP assets, etc. ...) which require alternative solutions that are still being discussed (with the International Atomic Energy Agency (IAEA) to enable both Organizations to mutually provide a backup computer installation at no additional costs) or have to be worked out (to set up a downsized operating system for Disaster Recovery).

17. We found that the terms of reference which had been prepared by the Secretariat for the Computer Management Advisory Committee and the Computer Technical Advisory Committee were not issued but will be used in formulating the terms of reference for the Information Technology Steering Group as foreseen in the Touche Ross consultants' report. The first meeting of this Group is expected to take place some time in late October/early November 1991.

18. The Secretariat informed us also that the introduction of a system for managing, controlling and auditing automation projects (in terms of real achievements in relation to previously agreed quantified objectives) is feasible and appropriate. To this effect, the PRINCE methodology recommended in the Touche Ross consultants' report will be implemented by UNIDO in 1992 for all new projects undertaken.

SECTION I - INFORMATION UPDATE ON EDP CONTRACTUAL ARRANGEMENTS

Consultancy study for a strategic automation plan for UNIDO

19. Pursuant to the recommendations of the Working Group of Independent Experts, which met in Vienna from 11 to 14 February 1991, the UNIDO Contracts Section invited, on 15 March 1991, seventeen companies from twelve countries to submit their preliminary offers for a consultancy contract by 22 March 1991.

20. The firms were asked for their competitive proposals for providing UNIDO with:

- a strategic EDP policy, taking into account all UNIDO EDP requirements for the next five years; and
- consistent with that strategic policy, a tactical and operational policy which UNIDO should pursue in order to obtain substantial reductions in the overall cost of UNIDO's computer programme over the next five years.

21. In summary, the ultimate aim of the consultancy project was to provide UNIDO with specific guidelines for the development of its EDP policy over the next years, within the limits of its technical, human and financial resources.

22. The requests for proposals, issued on 15 March 1991, stated that following UNIDO's evaluation of all preliminary proposals received, the Organization would contact selected companies which would be invited to UNIDO Vienna to comment upon, clarify and finalize their proposals on 25-27 March 1991.

23. Thus, the selected bidders should assign to UNIDO, Vienna, one of their senior permanent staff who should be fully empowered to sign a final proposal and to commit his company to a fixed lump-sum price for the services to be provided for. He should also be authorized to negotiate, as necessary, terms and conditions of the contract.

24. From the seventeen companies asked for proposals, five companies did not submit quotations so that twelve preliminary offers were evaluated by the Applications Development Section, which considered the following proposals as technically acceptable:

Coopers & Lybrand Deloitte	-	US$210,000
Andersen Consulting	-	US$238,500
Origin International	-	US$244,236
Touche Ross	-	US$269,470

25. The technical evaluation of the proposals was based on the following criteria:

(1) objectives and deliverables, in relation to those stated in the terms of reference;

(2) qualifications and experience of the companies and the proposed teams in other international organizations and:

(i) large IBM mainframe systems;

(ii) local area networks;

(iii) distributed processing;

(3) methodology proposed;

(4) number of workdays and distribution of these over the suggested project team and cycle;

(5) detailed layout of project execution.

26. Following discussions with the four companies invited to Vienna, preliminary proposals were changed on 27 March 1991 as follows:

(i) Coopers & Lybrand provided a second version of their proposal at the total cost of US$249,596 (first version US$210,000);

(ii) Origin International did not change the price of their proposal;

(iii) Andersen Consulting increased their cost from US$238,500 to US$244,303;

(iv) Touche Ross decreased their costs from US$269,470 to US$240,439.

All these final cost proposals were signed by authorized representatives of the companies as requested by UNIDO.

27. The Applications Development Section found that only the proposals of Touche Ross and Andersen Consulting were fully technically acceptable. In this regard, it was explained that for the technical evaluation, considerable weight had been attached to the companies' stated understanding of the purpose and requirements of the project, the previous experience with international organizations or government agencies, action plans and methodologies, the qualifications of team members and the ability to meet the tight reporting deadlines.

28. Indeed, in interviewing the four companies, it was found that Origin International wrongly thought that the report would be prepared jointly with UNIDO and thus did not seem to understand fully the task. On the other hand, Coopers & Lybrand Deloitte wanted to establish the EDP strategy and to recommend options by 19 April 1991 or after less than thirteen workdays of fact finding and analysis which, in the opinion of the technical evaluation team, was far too short a period to cover issues of such magnitude.

29. During the meeting of the Committee on Contracts, held on 28 March 1991, concern was expressed about the fact that the selection of the consultants and the time allotted for their study was compressed into a timeframe mandated by the dates of the session of the Industrial Development Board (1-5 July 1991). It was feared that lack of time to analyse the data flow and the organizational structure of the Secretariat might affect the validity of the consultants' recommendations. It was also regretted that the necessary in-depth study had not been initiated in a timely manner.

30. In conclusion, the Committee on Contracts agreed to recommend the award of the consultancy study contract in the amount of US$240,439 to Touche Ross, as lowest technically acceptable offer under financial rule 109.21 (b). The contract was signed by the Deputy Director-General for Administration (DDG/DA) and Touche Ross Consultants delivered:

- an interim report on 29 April 1991;
- a draft final report on 12 June 1991; and
- a final consultancy report on 8 August 1991.

Changes to existing contractual arrangements

31. In line with the recommendations of the Touche Ross consultants' report, certain terms and conditions of the existing EDP contracts have been renegotiated with IBM.

32. A Letter of Intent, signed by the DDG/DA on 18 June 1991, records the agreements that were reached with regard to the redistribution of costs of these contracts for the fiscal periods 1992-1993 and 1994-1995 as well as the modifications in the scope of the services and supplies involved.

33. Main features of the new agreements:

(a) The contract (No. 89/303) concerning the "License Agreement for IBM Programs" for which monthly payments of A$ 66,148 are still due until September 1993 will be terminated on 31 December 1991 (cf. our report IDB.8/3 of 25 February 1991 - annex I - para. 7.1 i and ii);

(b) As regards the "Agreement for System Integration" (No. 89/467) the thirty consecutive monthly payments (January 1992 - June 1994) of A$ 1,488,077 each (total A$ 44,642,310) will be rescheduled as follows:

(i) twenty-four consecutive monthly instalments (January 1992 - December 1993) of A$ 850,000 each (total A$ 20,400,000), plus

(ii) six consecutive monthly payments (January 1994 - June 1994) of A$ 4,762,500 (total A$ 28,575,000)

or in lieu thereof

(iii) purchase by UNIDO, effective 1 January 1994, of the mainframe 3090/250 J and its ancillaries at the price of A$ 30,862,100. In this connection, it was agreed that eventual instalment payments will be made at a monthly rate which will be agreed upon between UNIDO and IBM at the time a decision in this respect is reached by UNIDO and notified to IBM.

Furthermore, with effect from 1 January 1992, the monthly license charges for this contract will be reduced by removing some software by no later than 31 December 1991 (cf. our report IDB.8/3-PBC.7/3 of 25 February 1991, annex I, para. 10.6 - d);

(c) In the turn-key contract (No. 90/300) for the Vertical Wiring and Installation of IBM Token-Ring Backbone LWL Network in the Buildings D and E, all payments on cabling software will be brought at the rate of A$ 15,080 per month, replacing the current rate of A$ 19,640 per month (starting date: 1 July 1991). (cf. our report IDB.8/3-PBC.7/3 of 25 February 1991, annex I, para. 8.1);

(d) The Agreement for Facilities Management (No. 90/335) will be amended to include, with effect from 1 January 1992 (cf. our report IDB.8/3-PBC 7/3 of 25 February 1991, annex I, para. 12.6), the services and facilities provided for in the System Agreement Contract (No. 90/380) (cf. our report IDB.8/3-PBC.7/3 of 25 February 1991, annex I, para. 11.1). Therefore, with effect from 1 January 1992 and for a period of thirty-six consecutive months (through 31 December 1994), UNIDO will pay IBM the sum of A$ 1,136,600, replacing the current charges of A$ 1,282,500 (contract No. 90/335) and A$ 201,540 (contract No. 90/380). However, UNIDO reserves

the right to effect in 1992, 1993 and 1994, three yearly payment in advance of AS 12,950,000 each. In compensation to these charge reductions, the scope of the services provided for in the contracts concerned will also be modified.

(e) All payments under the System Agreement contract (No. 90/380) will cease with the payment for the month of December 1991.

34. In line with the oral agreements recorded in the Letter of Intent, the Contracts Section removed some software items from the Agreement for System Integration (contract No. 89/467) by letter of 27 August 1991. IBM confirmed the cancellation on 28 August 1991 but advised UNIDO to maintain the products for which one time charges had already been paid, in order to reserve the right to reactivate them in the future without further charges (monthly saved license fees: AS 304,660).

SECTION 2 - BUDGETARY AND FINANCIAL INFORMATION UPDATE

35. The information contained in table 1 reflects the proposals for revised appropriations for the EDP non-staff costs only (cf. document GC.4/47).

Chronology of the EDP resource requirement budget estimates

36. For reasons of transparency, the various successive budget estimates related to the EDP Programme for the 1992-1993 and the 1994-1995 biennia are shown separately in tables 3 and 4. The first column records the financial data contained in document IDB.7/31, where for the first time a sufficiently detailed outline of the current EDP Programme was presented; our survey further follows chronologically the available documentation on the subject up to document GC.4/42.

Table 1

1990-1991 REGULAR BUDGET
EDP NON-STAFF COSTS

(in thousands of dollars)

	GC.3/10/Rev.1 (at 12.90)	GC.3/10/Rev.1 (at 11.56)	Proposed revised appropriations of GC.4/47 (at 11.56)**
Career development training	0.0	0.0	198.5
Database acquisition & rental	741.0	814.9	0.0
Rental & maintenance of premises	0.0	0.0	195.2
Rental & maintenance of furniture & equipment	1,838.0	2,051.1	5,398.6
Communications	0.0	0.0	68.0
Supplies and materials	0.0	0.0	2,610.2
Acquisition of furniture and equipment	460.3	513.1	96.1
Joint computer services	450.3	502.5	1,037.3
	3,489.6*	3,881.6	9,603.9

Notes:

* As explained by the Secretariat, EDP supplies and materials and career development training resources were included initially under separate subprogrammes.

** Constitutes an update of document PBC.7/2.

Table 2

TOTAL REGULAR BUDGET EXPENDITURES FOR THE BIENNIUM 1990-1991
AS AT 31.09.91 BY PROGRAMME ELEMENT CODE

(in US$)

Programme element code	Description	Expenditures	
5011	Mainframe (MF) hardware	811,146.38	
5012	MF software	1,454,566.20	
5013	MF maintenance	344,084.63	
5014	MF operation (Facilities Management)	2,160,930.63	
			4,770,727.84
5021	Office Automation (OA) hardware	763,953.61	
5022	OA software	330,326.54	
5023	OA maintenance	800,353.67	
			1,894,633.82
5019	MF other costs	362,607.26	
5029	OA other costs	133,729.04	
			496,336.30
5031	Network (NW) hardware	33,777.04	
5032	NW software	63,164.58	
5033	NW maintenance	1,371.66	
5039	NW other costs	71,725.78	
			170,039.06
5049	External costs Costs to IAEA or ICC		1,028,600.46
5059	Credit costs		(247,823.70)
5069	Training (computer related)		196,589.08
5099	Other costs (as by object)		57,548.31
			8,366,651.00

Note: By deducting training costs in the amount of US$196,589.08 the total equals US$8,170,062.-

Table 3

COMPARISON OF THE 1992-1993 BUDGET ESTIMATES FOR EDP RESOURCE REQUIREMENTS AS PRESENTED IN THE DIFFERENT DOCUMENTS a/
(in millions of US dollars at US$1 = AS 12.90)

	IDB.7/31 5/10/90	IDB.7/31/Add.1 10/10/90	IDB.8/8/Rev.1 31/5/91	IDB.8/8/Rev.1/ Add.1,24/6/91	GC.4/CRP.1 (Touche Ross) 24.9.91	IDB.8/8/Rev.2 8/8/91	IDB.8/50/Add.1 15/8/91	IDB.8/50/Add.2 21/8/91	GC.4/42 25/9/91
Non-staff costs									
Mainframe									
Hardware	2.25	3.25	2.09	1.85	1.85	1.85	1.58	1.58	1.58
Software	1.71	1.71	1.71	1.67	1.67	1.67	0.98	0.98	0.98
Operation/Maintenance	2.71	2.91	2.71	2.28	2.28	2.28	2.11	2.11	2.11
	6.67	7.87	6.51	5.80	5.80	5.80	4.67	4.67	4.67
Office Automation									
Hardware	0.77	0.94	0.77	0.92	0.95	0.92	0.92	0.92	0.92
Software	0.20	0.38	0.38	0.15	0.15	0.15	0.15	0.15	0.15
Maintenance	1.07	1.21	1.21	0.64	0.64	0.64	0.64	0.64	0.64
	2.04	2.53	2.36	1.71	1.74	1.71	1.71	1.71	1.71
Other									
Supplies & materials				0.47	0.47	0.48	0.48	0.48	0.48
Network	0.11	0.55	0.11	0.41	0.50	0.41	0.41	0.41	0.41
External computer costs	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Training	0.28	0.56	0.28	0.28	0.28	0.28	0.28	0.28	0.28
External support				0.72	0.98	0.82	0.82	0.82	0.82
Software development				0.23	0.23	0.23	0.23	0.23	0.23
	0.46	1.18	0.46	2.18	2.53	2.29	2.29	2.29	2.29
Total non-staff	9.17	11.58	9.33	9.69	10.07	9.80	8.67	8.67	8.67
Staff Costs									
Additional staff costs	1.29	1.65	1.13 b/	1.96	1.96			1.13	
Existing staff costs	3.11	3.11	3.11	3.11	3.11				
Established posts (ongoing)						2.85	2.85	2.85	2.89
Conversion of ad hoc posts						1.13	1.13		1.13
Total staff costs	4.40	4.76	4.24	5.07	5.07	3.98	3.98	3.98	4.02
T O T A L	13.57	16.34	13.57	14.76	15.14	13.78	12.65	12.65	12.69

a/ The figures presented in this table are gross figures, not taking into account possible income.

b/ This amount was calculated as follows (based on the figures in document IDB.8/8/Rev.1):

Total staff costs	$4.24 million (para. 116)
deduct existing staff costs	$3.11 million (para. 120)
Additional staff costs	$1.13 million

Table 4

COMPARISON OF THE 1994-1995 BUDGET ESTIMATES FOR EDP RESOURCE REQUIREMENTS AS PRESENTED IN THE DIFFERENT DOCUMENTS a/
(in millions of US dollars at US$1 = AS 12.90)

	IDB.7/31 5/10/90	IDB.7/31/Add.1 10/10/90	IDB.8/8/Rev.1 31/5/91 b/	IDB.8/8/Rev.1 Add.1,24/6/91	GC.4/CRP.1 (Touche Ross) 24.9.91	IDB.8/8/Rev.2 8/8/91	IDB.8/50/Add.1 15/8/91	IDB.8/50/Add.2 21/8/91	GC.4/42 25/9/91
Non-staff costs									
Mainframe									
Hardware	1.92	1.18		2.87	2.87	2.87	2.87	2.87	2.87
Software	1.71	1.71		1.82	1.82	1.82	1.82	1.82	1.82
Operation/Maintenance	2.37	2.97		2.53	2.53	2.53	2.53	2.53	2.53
	6.00	5.86		7.22	7.22	7.22	7.22	7.22	7.22
Office Automation									
Hardware	0.33	0.67		0.54	0.54	0.54	0.54	0.54	0.54
Software	0.20	0.38		0.12	0.12	0.12	0.12	0.12	0.12
Maintenance	0.79	0.96		0.47	0.47	0.47	0.47	0.47	0.47
	1.32	2.01		1.13	1.13	1.13	1.13	1.13	1.13
Other									
Supplies & materials				0.47	0.47	0.47	0.47	0.47	0.47
Network	0.11	0.39		0.52	0.52	0.52	0.52	0.52	0.52
External computer costs	0.09	0.09		0.07	0.07	0.07	0.07	0.07	0.07
Training	0.41	0.81		0.28	0.28	0.28	0.28	0.28	0.28
External support				0.00	0.00	0.26	0.26	0.26	0.26
Software development				0.00	0.00	0.00	0.00	0.00	0.00
	0.61	1.29		1.34	1.34	1.60	1.60	1.60	1.60
Total non-staff	7.93	9.16		9.69	9.69	9.95	9.95	9.95	9.95
Staff costs									
Additional staff costs	1.29	1.65		2.08	2.08			1.35	
Conversion of ad hoc posts						1.35	1.35		1.35
Established posts (ongoing)	2.85 c/	2.85 c/		2.85 c/	2.85 c/	2.85	2.85	2.85	2.89
Total staff costs	4.14	4.50		4.93	4.93	4.20	4.20	4.20	4.24
T O T A L	12.07	13.66		14.62	14.62	14.15	14.15	14.15	14.19

a/ The figures presented in this table are gross figures, not taking into account possible income.

b/ Document IDB.8/8/Rev.1 does not contain budget estimates for the 1994/95 biennium in relation to the EDP resource requirements.

c/ For transparency purposes, the amount of $2.85 million, representing ongoing established posts for EDP as incorporated in document IDB.8/8/Rev.2, para. 122 (table on page 16 showing the resource requirements - EDP Programme) has also been recorded as staff costs as regards the financial data in the documents IDB.7/31 and IDB.7/31/Add.1, although these documents originally did not provide this information.

SECTION 3 - FINDINGS AND COMMENTS

Consultancy study for a strategic automation plan for UNIDO

37. Our audit of the contract file revealed that calls for proposals were issued on a wide international basis. Management explained that the seventeen competitors were selected out of a list of consultancy firms, taking in consideration the special requirements stated in the terms of reference, prepared by the Working Group of Independent Experts (cf. IDB.8/12-PBC.7/18 of 28 March 1991).

38. We concur with the comments made in the Committee on Contracts meeting, dated 28 March 1991, and also with the reservation expressed by the Management Information Services (MIS) Division on the feasibility of any qualified consultant completing, in time and within the financial resources available, the scope of work requested in the terms of reference, given the complex environment in which the work had to be done. However, though UNIDO undoubtedly applied all standard contract management procedures that limited time and the special nature of the project would permit and the Secretariat also made its best possible efforts to accommodate all requirements stipulated in the terms of reference of the Working Group of Independent Experts for the companies' final proposals, we fear nevertheless that these circumstances may have affected the quality of their study (cf. para. 60 infra) as well as the transparency of the procedure of calling for proposals. Thus:

(i) although our review indicated that the preliminary and final offers have indeed been evaluated on the basis of criteria which could be deduced from the terms of reference, it would have been procedurally better to enumerate these criteria clearly in the calls for proposals, indicating also the relative importance of each criteria;

(ii) the number of competitors which could orally specify and change their preliminary offers has been restricted eventually to four firms;

(iii) the absence of formal records of the discussions that took place in Vienna after the submission of the preliminary offers makes it difficult to perform an objective *a posteriori* evaluation of, for instance, the circumstances and reasons which led the invited firms to modify or not to modify their respective preliminary offers.

39. On our observations, Management assured us that all efforts will be made by the Secretariat in the future to include in the requests for proposals, especially in the major Headquarters contracts and purchases, more detailed criteria for final technical evaluation, if possible. We will follow up on this matter in due course.

Financial implications of changes to existing contractual arrangements

40. At the time of our audit, at the beginning of October 1991, Management couldn't provide us with amendments, signed by both parties and laying down the contractual conditions and payment schedules in connection with the various changes to the existing EDP contracts described in paragraphs 31 to 34 above. The Administration explained in this regard that the actual contract amendment process would be completed probably only by the end of October 1991.

41. We wish to point out that under the circumstances, the full financial implications of all the intended changes cannot yet be calculated. Nevertheless, we were told that the agreed changes, set forth in the above-mentioned Letter of Intent, remain the primary objective of the current finalization of negotiations and thus also provide a fairly reliable and accurate basis for budgetary/financial projections.

Budgeting procedures

42. We noted that pursuant to the request of the IDB in decision IDB.8/Dec.35, paragraph (e) of 5 July 1991, EDP non-staff cost estimates are shown in the 1992-1993 budget proposals under a separate object of expenditure and are being spread also among different user departments (document IDB.8/8/Rev.2, paras. 120-123 refer).

43. In our view, this change in budgetary procedure of the Organization provides a valid basis for meeting in future the observations, formulated in our initial report (document IDB.8/3, paras. 83(b) and 84 refer) on the subject of budgetary approval authority (financial regulation 4.3 on transfer of expenditures) as well as for strengthening further the effectiveness of the budgetary/allotment control mechanism.

44. We observed also that, as approved by the IDB at its seventh session, a new "net basis" budget format has been adopted by the Secretariat for the presentation of the 1992-1993 budget proposals in general and for the relevant EDP Programme budget section in particular. Management has explained in this regard that comparison with other agencies is enhanced by such net budget presentation which shows the actual cost of the Organization's budget by excluding the cost of services carried out on behalf of other Organizations. Since cost reimbursement (by other Organizations) is thus no longer considered and treated as budgetary (other/miscellaneous) income, we advise that the Administration should review carefully the financial regulations and rules of the Organization with a view to ensuring that this new budget practice is fully consistent with the prevailing legislative directions.

45. On the matter of spreading all EDP non-staff costs among different user departments, Management replied to our queries that the apportionment of the costs of the EDP programme among the user departments is intended to establish a closer link between programme objectives and resource inputs and that the Secretariat is in the process of developing a charge-back system which would allocate computer

resources to end-users (at the divisional level) and enable programme managers to determine how those resources could best be used to achieve their programme objectives within the overall context of the Organization's strategic information plan. The Secretariat hopes to have this charge-back system in place by the time the 1992-1993 programme and budget is implemented. Moreover, we were told that, as in the apportionment of the non-staff costs of the EDP Programme, it is the intention of the Secretariat to distribute also the EDP-related staff costs among the various departments once a meaningful charge-back system is in place in UNIDO. Management added that this practice has met with the approval of the Member States in the case of the IAEA.

46. We intend to follow up and report on the implementation of this administrative (EDP) cost distribution and charge-back system in due time.

Financial control procedures

47. With IDB.7/Dec.26 the IDB authorized the Director-General to spend on the EDP programme $2.6 million between its seventh session and the seventh session of the PBC, or from October 1990 to 26 April 1991. This expenditure authorization was increased by $2.2 million to bridge the period from 27 April to 30 June 1991 (cf. IDB.8/48). Finally the Director-General was requested not to exceed an amount of $1,288,050 on expenditures related to the EDP system from 1 July until 30 September 1991 (cf. IDB.8/Dec.35). Thus, the PMO authorized to spend budget resources up to a total amount of $6,088,050.

48. Our audit revealed that during the respective afore-mentioned periods expenditures (disbursements plus obligations) were as follows:

October to 31 December 1990	$1,333,163.08
January to 31 March 1991	$1,066,185.78
April to 30 June 1991	$1,161,961.08
July to 30 September 1991	$1,004,932.97
Total	$4,566,242.91

49. From the foregoing computation it can be stated that the Secretariat fully adhered to the decisions of the PMO.

50. In total $8,170,062 (cf. note to table 2) were spent on the regular budget for EDP non-staff costs from 1 January 1990 until 30 September 1991 (January to September 1990: $3,603,819.09 + October to September 1991: $4,566,242.91). Compared with the proposed revised appropriations of $9,603,900 at $1/A$ 11.56 (cf. table 1) there remains a balance of $1,433,838. On our queries the Secretariat explained that all contractual commitments for the final quarter of 1991 can be met on the basis of the redeployment proposals as already approved by the PBC and the IDB.

51. It is our understanding that other EDP non-staff requirements for 1990-1991 will be financed from available operational budget resources as set out in the relevant 1990-1991 budget (redeployment) proposals of the Secretariat.

52. As regards budgetary allotments control for EDP non-staff costs the Secretariat further explained that the PMO bridging authorizations were not used as a basis for issuing allotments, because these authorizations did not represent an adjustment to the approved appropriations. In its opinion the PMO authority was given to enable the Organization to meet contractual commitments and to keep the EDP system in operation. Therefore allotments were issued on the basis of the redeployment proposals to the PBC and the IDB as mentioned in document PBC.7/2.

Procedures for the examination, approval, recording, accounting and reporting of commitments for future fiscal periods

53. In our initial report (document IDB.8/3, paras. 92, 94, 95 and 96 refer) we observed that, contrary to the requirement of the financial regulations and rules of the Organization, most of the EDP acquisition project commitments at the end of the 1988-1989 biennium had not been recorded in the accounts of the Organization and consequently had also not been reported, as required, as deferred charges on the UNIDO General Fund statement of assets, liabilities and fund balance as at 31 December 1989.

54. We found that steps have been taken now by the Administration to provide the PMO with the necessary information on EDP programme commitments for future fiscal periods by presenting, together with the 1992-1993 programme and budgets proposals, estimates of the EDP programme costs through to the end of the 1994-1995 biennium.

55. Moreover, EDP programme commitment items have been recorded as deferred charges on Statement III - UNIDO General Fund - Statement of assets, liabilities and fund balance as at 31 December 1990, of the interim financial performance report of the Organization for the biennium 1990-1991 (document PBC.7/16 of 4 April 1991 refers).

56. We appreciate these efforts of the Secretariat to improve the financial reporting system for commitments against the resources of future fiscal periods and we will follow up in due course on further action by Management in this respect especially as regards the elaboration of:

(i) an appropriate administrative and internal control mechanism for the examination, approval and recording in the accounts of all financial commitments; and

(ii) legislatively acceptable criteria for reporting commitments in the financial statements of the Organization (to be set out in detail in the notes to these statements).

57. At any rate, Management should ensure that the UNIDO financial statements for the biennium 1990-1991 as at 31 December 1991 reflect accurately and in detail the actual financial commitments position of the Organization taking into account also the recent changes in contractual EDP programme arrangements.

The Touche Ross consultants' report in the light of the terms of reference established by the Working Group of Independent Experts

58. Since the Touche Ross consultants' report will undoubtedly have a major impact on the progress and the completion of UNIDO's EDP Programme, we also paid attention to the compliance of the content of their final report

with the terms of reference as specified in annex E to the request for proposals.

59. In this regard, we noticed that some of the terms of reference elements were missing (e.g. data model) or were not fully elaborated (e.g. system implementation, systems priorities, estimates of information volumes - rates and file sizes - within computer systems).

60. In this connection Management explained that the quality of the consultants' in-depth study was affected by external factors (cf. para. 38 above) and was further burdened by certain additional tasks which were requested from the consultants directly by the Independent Experts. Furthermore we were informed that the terms of reference proposed by the Working Group of Independent Experts established a Project Liaison Committee to follow developments, take all necessary decisions and control the schedule of the Consultants' work and its progress. In fact, the Project Liaison Committee and the Experts maintained oversight and control of the work of the Consultants until the report was endorsed and a recommendation was made to the PMO to approve the Touche Ross Consultants' report. According to Management's explanation, it was on this basis that UNIDO considered the terms of reference fulfilled.

61. In addition we also noticed that, already at an early stage, MIS Division has realized the need for other external consultancy services in order to be able to proceed with the implementation of the more technical Touche Ross recommendations as well as for other technical and organizational issues not related to the terms of reference drafted by the Working Group of Independent Experts. In this regard we found that adequate budgetary resources to accommodate this requirement have been provided in the 1992-1993 budget proposals already approved by the PBC and the IDB.

Facilities Management/Disaster Recovery Plan

62. The Letter of Intent, dated 18 June 1991, records the agreements that were reached with IBM regarding the modifications of certain terms and conditions of, inter alia, "Facilities Management of the UNIDO Computer Centre".

63. Apart from the changes agreed upon in the areas of the Facilities Manager, the on-site Operations Co-ordination, the Systems Support Professionals ..., major modifications to the Disaster Recovery Support (a most important issue regarding hard- and software security, safeguarding of EDP assets) have been negotiated.

64. Taking into account the very strong limitations set to IBM's support of disaster recovery services, we asked Management to what extent these services, as provided for by the "Disaster Recovery Support" (as detailed in annex F to the current Facilities Management Contract), have been carried out by IBM. In reply, Management informed us that the necessary back-up procedures have been implemented in order to ensure that:

(1) all vital data are backed up on a daily, weekly and monthly basis;

(2) a copy of the complete operating system with all its components is kept at IBM and is updated on a weekly basis.

Furthermore, all vital back-up files (on cartridges) are removed from the central computer facility on a daily basis and are stored in a safe place. A disaster recovery handbook is under preparation and a first version will be available early 1992.

65. We also raised questions with Management on what is, in our view, one of the most important elements of a well-designed disaster recovery plan, namely the availability of a back-up computer installation in case of an emergency. On this matter, Management informed us that, since the present and also future (1992/1993) budget does not contain any provision for this kind of service, the easiest and cheapest way to proceed is to find an arrangement with the IAEA. This has to be a mutual agreement based on technical prerequisites. The disaster recovery systems have to be tailored to the available resources at the receiving end, which will require additional time. It is IBM's contractual obligation to set up a downsized operating system according to UNIDO's specifications and to assist UNIDO in carrying out a successful test of the recovery system. Discussions will continue to reach an arrangement with IAEA to enable both Organizations to mutually provide a back-up installation at no additional cost.

Organizational and functional changes

66. In our initial report (document IDB.8/3 of 25 February 1991, paras. 92 (a) and 100 refer) we concluded that a major flaw in the internal control system of the Secretariat in the implementation phase of the EDP programme consisted of the circumstance that the Management Information Advisory Committee, specifically designated by the Director-General to assume a central co-ordinating role in the budgetary and financial monitoring and control process of the EDP programme implementation, defaulted completely in practice. We, therefore, advised that measures should be taken by the Secretariat at an early stage to enforce strict adherence to formal management and control procedures in this area.

67. We noticed that, meanwhile, the Director-General has announced repeatedly that the existing internal review committees are undergoing review and will be strengthened as well as that the Director-General and Department Heads will take a more active role in reviewing computer policy and usage in the Organization (documents IDB.7/31 of 5 October 1990, para. 11, and IDB.7/31/Add.1 of 10 October 1990, para. 29 (b) refer).

68. Since the Secretariat stated later on (the annex of document IDB.8/5 of 8 March 1991 refers) that "revised terms of reference for the Computer Management Committee (CMC) and the Computer Technical Committee (CTC) have been prepared to provide for more effective policy and budgetary control", we enquired about the present status of implementation of the intended and announced organizational and functional changes regarding the management of the EDP Programme of the Organization.

69. The Administration explained that the terms of reference which had been prepared by the Secretariat for the Computer Management Advisory Committee (CMAC) and the Computer Technical Advisory Committee (CTAC) were not issued pending the report of the consultants. These terms of reference will be used in formulating the terms of

reference for the Information Technology (IT) Steering Group as foreseen in the Touche Ross consultants' report. In addition, the IT Steering group will also review the financial implications of new projects to be developed within the strategic information systems to ensure that such projects can be implemented within the limits of the EDP appropriations.

70. As envisaged by Management, the IT Steering Group will comprise senior management representing all key functions within UNIDO and include representation from the Office of the Director-General and the Information Technology Director (cf. Director-General's bulletin UNIDO/DG/B.142 of 8 February 1991). The Group will report directly to the Director-General through the Office of the Deputy Director-General for Administration and the first meeting of the Group is expected to take place some time in late October/early November 1991.

Internal control and evaluation of automation projects

71. In their report on the computerization of UNIDO (document IDB.8/6-PBC.7/6 of 27 February 1991, para. 37 (ii) refers), the Working Group of Independent Experts recommended, inter alia, that a system for auditing the results of automation projects should be established to measure the real achievements of new systems in relation to the quantified objectives previously agreed upon.

72. We fully concur with this recommendation of the Independent Experts the more so because, in our view, such an internal control and evaluation system for new computer application projects may contribute considerably to the efficient, effective and economical usage of the ongoing computerization progamme of the Organization and would generate also useful and high quality information for the PMO of UNIDO.

73. On our queries, the Secretariat considered it feasible and appropriate to introduce a system for managing, controlling and auditing automation projects as recommended by the Working Group of Independent Experts. To this effect, the PRINCE methodology recommended in the Touche Ross consultants' report will be implemented by UNIDO in 1992 for all new projects undertaken and this will include, among others, a project evaluation review and a post-implementation review to be carried out six to twelve months after implementation, to review objectives and to determine that user needs are being met.

74. We found in this regard that the UNIDO ASAP Project draft final report of the EDP consultants (31 May 1991) recommended indeed, on the subject of project management methods, that UNIDO acquires as soon as possible the PRINCE formal project management methodology which was developed for the management and control of projects in public sector organizations in the United Kingdom, and that PRINCE project boards are put in place by the UNIDO Secretariat for each area of development and also for maintenance tasks.

75. We consider it of importance that the implementation particulars of the PRINCE methodology at UNIDO should accommodate also the requirements of a periodic EDP performance reporting mechanism to the PMO within the scope and terms defined by the Working Group of Independent Experts, i.e., "measurement of the real achievements of new systems in relation to the quantified objectives previously agreed upon".

ACKNOWLEDGEMENT

76. I wish to express my appreciation for the valuable assistance and co-operation extended to the audit team by the Director-General and his staff during the special update and follow-up audit exercise.

Jeroom L.E. VAN de VELDE
Senior President of the
Court of Audit
Belgium
External Auditor

Brussels, 15 October 1991